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ABSTRACT

The Committee to Investigate Copyright Problems (CICP), a non-profit organization dedicated to resolving the conflict known as the "copyright photocopying problem" was joined by the American Society for Testing and Materials (ASTM), a large national publisher of technical and scientific standards, in a plan to simulate a long-proposed solution to the problem. This is a non-profit, voluntary system of access-permissions-and-payments called a copyright clearinghouse (CHC). A moratorium contract between ASTM and its client organizations guaranteed against infringement in making up to 50 multiple copies at a time of any ASTM publication. In return these organizations supplied CICP with data for analysis of their copying. Both CICP and ASTM pledged their support for transforming the experiment into a permanent, national CHC. At this point Government support for CICP suddenly ended. CICP became inactive, while volunteers in ASTM, CICP and elsewhere carried on the reduced and modified collection and analysis of moratorium data. This report analyzes the data obtainable, finds a number of facts useful for copyright and CHC economics, and supports the hypothesis that such a system would largely resolve the copyright photocopying problem. A renewed effort is recommended, starting with more extensive and intensive studies. (Author/NH)

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AN EXPERIMENTAL COPYRIGHT MORATORIUM:

Study of a Proposed Solution to the Copyright Photocopying Problem.

Final Report to the

American Society for Testing and Materials (ASTM)

by the

Committee to Investigate Copyright Problems Affecting Communication in Science and Education (CICP), Bethesda Md.

prepared by

Laurence B. Heilprin

July 1970

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AN EXPERIMENTAL COPYRIGHT MORATORIUM:
Study of a Proposed Solution to the Copyright Photocopying Problem

Final Report to the American Society for Testing and Materials (ASTM)[1] by the Committee to Investigate Copyright Problems Affecting Communication in Science and Education (CICP),[2] prepared by

Laurence B. Heilprin[3]

Abstract: CICP, a non-profit organization dedicated to resolving the conflict known as the "copyright photocopying problem"--a conflict between Constitutional copyright protection of intellectual property and the growing use of new copying and processing techniques too rapid for the making of individual contracts for access to copyrighted works--was joined by ASTM, a large national publisher of technical and scientific standards, in a plan to simulate a long-proposed solution to the problem. This is a non-profit, voluntary system of access-permissions-and-payments called a copyright clearinghouse (CHC). A moratorium contract between ASTM and its client organizations guaranteed against infringement in making up to 50 multiple copies at a time of any ASTM publication. In return these organizations supplied CICP with data for analysis of their copying. Both CICP and ASTM pledged their support for transforming the experiment into a permanent, national CHC. At this point Government support for CICP suddenly ended, possibly as a result of an anti-government copyright suit involving the grantor. CICP became inactive, while volunteers in ASTM, CICP and elsewhere carried on the reduced and modified collection and analysis of moratorium data. This report analyses the data obtainable, finds a number of facts useful for copyright and CHC economics, and supports the hypothesis that such a system would wholly or largely resolve the copyright photocopying problem. A renewed effort is recommended, starting with more extensive and intensive studies.

Acknowledgements

Following the forced withdrawal of CICP as a participant in this experiment, and its placement on an inactive basis, all contributions to this study were voluntary and personal. Thomas A. Marshall, former Managing Director of ASTM, and Albert L. Batik, Director of ASTM Publication Operations, without whose farsighted collaboration the moratorium experiment would not have been possible, undertook and administered the abbreviated questionnaire which provided the data for this report. Dr. Howard A. Meyerhoff, President CICP, whose sustained leadership since CICP's founding was largely responsible for the experiment, has continued to contribute. Gerald J. Sophar, who initiated the moratorium contract during the period of his activity as Executive Director, has continued to serve as Director and Secretary. CICP has been strongly supported by its other Directors: Alexander L. Baptie, CICP Treasurer, Dr. Luther H. Evans, and Dr. Laurence B. Heilprin, Vice President CICP. The last named undertook CICP's final obligation under the moratorium contract--to perform the data analysis and write this report. Mrs. Jean D. Brennan, former Assistant to the Executive Director, CICP, undertook too many services to express. The CICP gratefully acknowledges a grant by the Regina and Milton Heyman Foundation of Washington, D. C. which supported the data analysis and enabled dissemination of the report.

I. Background of an Attempt to Resolve a National Copyright Problem

As those interested in the rather special field of copyright are aware, one of its most intractable, if not central, problems is the conflict represented by "copyright photocopying". Copyright originates in law but makes its chief impact in economics. It was designed to do this in the Constitution (Article I, Sec. 8): the Congress shall have power "To promote the Progress of Science and useful Arts, by securing for limited Times to Authors and Inventors the exclusive Right to their respective Writings and Inventions." Until the early part of this century the intended protection of authorship was effectively carried out by construing "exclusive right" to include control by the copyright owner over reproduction of his works. He acquired a right, in many ways equivalent to property, which like property, he could dispose of by contract. He could sell or license. The economic value to the author was of course not fixed, but depended upon its "market value" to users. And this value depended not only on the intrinsic value of the work, but on how long the user could in turn control and exploit the work.

In the decades which followed the duration of the economic value to the user decreased steadily--more and more rapid access and exploitation were vital, for an increasing proportion of copyrighted works. On the other hand, the control over reproduction which the copyright owner had to sell became less and less effective. Because of modern methods of high-speed transmission, reproduction and processing the user could and did make increasing use of copyrighted works without contracting with the owners before use. The use of individual contracts was far too slow for the majority of copying transactions. Modern complexity strengthened this

trend. Sometimes there are multiple owners who can not all be physically reached. There may also be many joint users, all of whom require copies within competitively short times. Perhaps a lecturer needs a quotation for his coming talk. Or a teacher requires copies for students meeting the next class hour. An industrialist may need multiple copies for a team discussion to take place within minutes. Scientists, Government workers, professionals also tend to need multiple and more rapid access than can be achieved by the individual contract. The inconvenience of locating copyright owners and getting permission is usually far greater than the particular economic payment for use, or the sum which would be paid if there were a way to do so. In the absence of an effective system for contractual exchange of permissions for payments the tendency has been to reproduce the work without permission. This may be done in total ignorance that it constitutes infringement, or the user may be aware but choose to ignore. The general disregard is increased by other, less legitimate factors. Psychologically but not legally copying a part of a work may seem less of an infraction than copying a whole work. Copying from books is overwhelmingly partial--an extract. Journal articles, which are themselves short, are copied in full but still can be regarded as extracts from the journals in which they appear. Such "justification" is unfounded. Shortness is not equivalent to negligible economic value, but often lulls the user in disregarding the copyright law.

In this way technology and competition have fanned into life a vast, illegal "bootlegging" of copyrighted works. The ancient legal right to dispose of one's intellectual product is in conflict with modern use of that product. In a world of shrinking access times and almost limitless capa-

bility to infringe, not only the substantive economic control but the ethical fiber of regard for the legal right have deteriorated, until the very continuation of the Copyright Principle is in jeopardy. The chief factors which tend to preserve the balance and still make authorship and publication economically worthwhile are that extensive copying, and copying which also involves search, are still time consuming and thus economically unprofitable. It is often cheaper to buy an original from a source whose location is known than to search for a work and copy. Infringement occurs mainly in the inverse case, when the original is located but the copyright owner is not. However, if a way could be found to pay the copyright owner for the privilege of rapid multiple copying of his works, the copying to be performed, say, within a system that collects many originals in one spot (a library), there would in all probability be an overwhelming support for such a system. People are not intrinsically dishonest--if a way can be found that permits them to be honest.

About ten years ago a small group who foresaw the coming dilemma of copyright photocopying formed a non-profit corporation dedicated to study and resolve the problem. This was the origin of the CICP. Its publications during the decade 1958-1968 began with the study of all of the proposed solutions which were known, and the setting up of specifications by which the solutions could be compared.[4] The gradual emergence of and tentative support for a so-called copyright clearing house followed.[5,6,7,8,9,10] In 1966 CICP attacked the problem on a larger scale. Grants had been received from a number of private contributors. A national office was opened, and an executive director appointed (G. J. Sophar). Through his efforts CICP received an additional grant from the U. S. Office of Education to support two studies, one on the economics of copyright, the other on the doctrine

of fair use as applied to copyright. The report received unusually wide distribution, and is available from two national clearinghouses. It is referred to hereafter as the CICP-USOE report.[11]

In June, 1967, the American Society for Testing Materials(ASTM) entered into an agreement with CICP to set up, operate and study a simulation of the long proposed solution to the copyright photo-copying problem--a contractual system of blanket permissions by publishers, rapid access by users, and bulk payments for copies. ASTM is a non-profit organization which develops technical standards with the collaboration of many volunteer committees. Financial support for this work comes largely through sale of the standards to subscribers and other users. Thus ASTM is a large publisher of materials on which it holds the copyrights. The officers of ASTM had become aware of the copyright photocopying problem through decreasing sales of ASTM publications. It was not possible, of course, to say that copying instead of purchase on the part of the users had become of sufficient magnitude to account for the gradual loss of income. But there was a real concern, and motivation to find out if a working method of permissions could succeed.

The method chosen was to offer subscribers to ASTM publications immunity from suit for infringement in return for membership in and collaboration with CICP in study of the problem. Collaboration consisted in keeping a record of copying by each member library, for a period of one week, and repeating this three times, at intervals of three months. Therefore the total data consisted in three samples extending over six months. It was thereby hoped to trace the effect of immunity on the volume of ASTM publications copied, and in particular, on the numbers of multiple copies.

The feasibility of an equitable system of access and payments which came to be known as the copyright clearing house (CHC) has been described in a number of publications. Perhaps the clearest are in references 4 and 8. Appendix D is a reproduction from page 138 of the latter. The diagram shows how the CHC would function as a "switching device" for access to and payments for copyrighted materials, a device at present lacking in the economy. It would be self-supporting but otherwise nonprofit, if possible Congressionally chartered, and controlled jointly by copyright owners and users. There exist a number of organizations such as the American Society of Composers, Authors and Publishers (ASCAP) and Broadcast Music, Inc. (BMI) for compensating copyright holders in the performing arts of music. Control of these is vested, however, in the copyright owners. In a clearinghouse of the kind proposed there would be equal representation of users and owners with perhaps a balancing public representative such as the Register of Copyright.

One reason for the study of the feasibility of a clearinghouse was that it has been strongly questioned. The main point always advanced has been the very large number of small transactions, detailed accounting for which would cost more than any reasonable sum that could be collected for transfer to copyright owners. Supporters of the clearinghouse have pointed out that there is no need for detailed accounting in order to run an effective operation. All copying services keep minimal records of overall volume, or total annual copying. This is sufficient for operation of a clearinghouse on a profitable basis. Another objection has been that a purely voluntary contractual membership would fail because of abstention from the system. However, the voluntary contract has always been the basis of

copyright business. The clearinghouse merely substitutes a different and more workable form of contract—one geared to the realities of new technical devices and modern competition. Self-interest would be an increasingly strong inducement to join as soon as a sizeable fraction of the publishers were receiving sums for copying their works. Distribution to members would be made on the basis of periodically rotated samples of national copying (jointly on numbers of pages copied and mean publishing cost per page). All publishers would participate to at least a minimum amount. It was apparent that these and other questions on organization and motivation for participation could be settled more effectively by studying a going organization that could either simulate a clearinghouse or better, evolve into one, than could further arguments. A prototype was needed.

The unique contract between ASTM and CICP was designed to provide the prototype. The group of companies and agencies which subscribed to ASTM publications through their libraries represented a diversified body of users. ASTM represented a large, single publisher-copyright holder. Both ASTM and CICP pledged that, following the study by CICP and the collaborating libraries they would endeavor to establish such a clearinghouse. Preferably this could take place by evolution: extension of the copyright contract to other users, and to additional publishers. Contracts and documents for this historic agreement are shown in Appendix A. Although, as mentioned, this was not the first clearinghouse based upon copyright, it was the first prototype of a clearinghouse designed in the public interest to solve copyright photocopying problems, with equal representation by publishers and users. This report describes the partial success of the experiment in spite of unforeseeable adverse external copyright events which ended it.

A. CICP Research Leading to the Experiment

As described, just prior to this experiment CICP had made two related studies on copyright economics, and fair use, respectively. In 1966 L. B. Heilprin obtained for the CICP Study Group the collaboration of six geographically and functionally different U. S. libraries which collected detailed records of one month of their copying of copyrighted works. From the data it was possible to determine a number of new economic and scientifically interesting facts about U. S. library copying of copyrighted works. The other study, conducted in 1967 by G. J. Sophar surveyed the doctrine of fair use as it may apply to library copying, through research on court decisions in this area, and replies to questionnaires by library administrators of some 66 libraries selected on a nationwide basis for activity in copying. Both the fair use study and the study of copyright economics were supported by the grant from the Bureau of Research, U. S. Office of Education, Department of Health, Education and Welfare. The two reports were combined into one volume.[11]

The two-study report contains a number of findings bearing on proposed solutions to the photocopying problem, including the economic feasibility of a copyright clearinghouse. Many of these required further research. CICP proposed to explore some of them using data reported by user libraries under the ASTM-CICP contract. One surprising finding had been that none of the six libraries and few of the 66 libraries reported multiple copying from the same copyrighted document:

> "It should not come as a surprise that the total number of prints listed on Table I is 43,116, the same as the number of exposures. This exhibits one of the primary constraints self-imposed upon libraries with photoduplication services. As they now operate, such libraries tend to

> assume that supplying a single copy is equivalent to "fair use". However, the fact that these numbers matched so exactly scarcely implies that only single copies were ever needed. What it does seem to imply is that the responsibility for making multiple copies was passed along. If multiple copies were needed they were not made by the libraries." (p.63)
>
> "The number of multiple copies of the same document made for the same client by U. S. libraries is almost negligible. Multiple copies are (in general) not supplied by U. S. libraries, while single copies are supplied freely. One-to-one copying--one copy, one client--dominates U. S. library copying." (p.84)

The ASTM-CICP contract did not permit unlimited multiple copies of an ASTM publication, but did allow up to 50 copies at a time. This limit was believed large enough so as not to affect signs of a change in copying pattern, and the assumption proved correct. Two other prior findings had been:

> "There is a preponderance of copying from materials containing scientific and technical subjects, as against other subjects." (p.84), and
>
> "Articles from journals are nearly always copied as a whole; books are nearly always copied in part only." (p.83)

As far as the ASTM-CICP libraries were concerned, the first finding would be automatic, since ASTM material is almost entirely technical. On the other hand it was anticipated that further insight into part/whole copying would be obtainable from study of the relative copying from the four classes of ASTM publication. A new part/whole copying ratio might be found.

Other ratios it was proposed to measure were the ratio of copying of <u>all</u> materials (published or not, copyrighted or not) to copying of <u>published</u> materials (copyrighted or not)--which would give an idea of the total size of the copying field, and the ratio of <u>published</u> materials to

published copyrighted materials, which would estimate the copyright copying for which payment might be expected. Of great interest would be growth of participation of libraries taking advantage of the moratorium. This could be measured through greater copying of ASTM publications, and in spread of contracts with CICP by organizations other than ASTM. A number of publishers of scientific and technical data were considering membership in CICP under parallel contracts. There was therefore some reason to hope that the prototype might evolve directly into the more comprehensive and independent non-profit public service organization that ASTM and CICP proposed to initiate.

B. Plans to Extend CICP Research

The degree of success by the so-called private sector in attacking a large problem of public concern did not go unnoticed. Pleased with the first CICP Report to itself, the USOE proposed a nearly ten-fold increase in support of a continuation study of the photocopying problem and related copyright problems, through further study of the ASTM-CICP prototype system. At its request a second proposal for research was made, and assurance of fund-allocation given CICP. To sustain its neutral role among users and copyright holders CICP sought no support from interested parties. In fact, it sought no other support. This was a mistake.

In order to study the proposed system of access-permissions-and-payments much more comprehensively a long-term, large-scale investigation would be launched. Detailed, carefully prepared sets of questions and instructions for data-gathering would be required (somewhat similar to those used in the six-library intensive study), and other forms. The

data were to be in the form of a series of observations of a growing system. Continuing analysis of author-publisher needs, and user needs, would be correlated with copying data. The two would become increasingly well matched in the design of the system.

In order to be realistic this system would have to meet some difficult constraints. It would be non-profit beyond the need to be self-sustaining. It would, on a national scale, effectively collect a very large flow of very small copyright and use fees. It would do this using a minimum record-keeping on the part of the copying organizations, mainly libraries but also private copiers for whom special devices such as stamp sales would be set up. It would maintain equitable distribution of copying royalties to copyright holders, based on continuously-adjusted statistical sampling of copying. Membership in the CHC would be voluntary, and as emphasized, representation on its Board would be balanced between publishers and users. With strong support from its friends, CICP was organizing to perform the new study, assist in launching the operational phase of the CHC, and eventually either dissolve having achieved its purpose or be absorbed into the resulting structure.

C. Unexpected Copyright Events

This was the rather dynamic situation in early summer, 1968. The CICP Study Group was already preparing the new data forms. But before its plans got under way an unprecedented event occurred. The National Library of Medicine, like the Office of Education a government agency within the Department of Health, Education, and Welfare, became defendent in a copyright infringement suit. For many years the NLM had operated a national and international network supplying free medical information

to medical-institution clients. Williams and Wilkins, medical publishers, complained that this dissemination reduced marginal sales, and pointed out that, whether it was in the public interest or not, unauthorized copying violates the Copyright statute.[12] This reiteration of the letter of the statute was a challenge, not only to NLM but to all libraries that copy for clients. Since NLM was technically infringing, the defense would have to interpose some form of limitation on the copyright law whereby copies could be made in the public interest by libraries. If such an exception could not be established, library copying for clients would be limited to copying with prior permission of copyright holders. There would be a great decrease in the effective use of modern library-conducted reprographic technology. But the libraries had already asserted a position which they claimed exempted them. This was, that the "doctrine of fair use" applied to library copying. The doctrine had been established by judicial decisions in fields other than copyright--such as business. But since 1961 the Joint Libraries Committee on Fair Use in Photocopying claimed that the library making a copy for its client was protected by the doctrine of fair use from the literal application of the Copyright statute, which forbids unauthorized copying of copyrighted works. The issue was complicated by identifying fair use with the making of a single copy.[13, 14]

The connection between this issue and the subsequent history of CICP arose through the fact that CICP had discussed fair use in its 1967 report to the USOE. In the report it reiterated that the doctrine was not established by statute but by court decisions; that the courts had never tested its applicability to copyright photocopying; that even if the doctrine were so tested it was unlikely that the identification of fair use with the making of

a single copy for a client would hold; and that, in the absence of such a court test unauthorized copying was still an infringement under the existing copyright statute. These facts and views were stated in a forthright way, yet they were neither new, nor stated as forcefully as in prior publications. For example:

> The first comment is to note the oft repeated error that "the justification for the photocopying of copyrighted material would seem to be founded on the doctrine of 'fair use'". The Register's Report also depicts the reprography problem as one of fair use. If there is any one thing which library photocopying is not, it is not fair use within any judicial usage of that doctrine. It is hoped that if this presentation accomplishes one purpose, it will be to separate consideration of library reprography from fair use.
>
> A second legal comment is that replication of copyrighted material as now practiced by libraries seems to be a violation of the Copyright Law, and in extreme cases carries severe overtones of unfair competition.---[15]

In the CICP-USOE report the reiteration was at first accepted as a welcome clarification. As long as there was no court test, "being right" could be claimed by both sides--those who held fair use germane to the library copying problem and those who did not. But this was changed by the suit. And, coming at this time, further support of CICP could have meant endorsement by one part of HEW(USOE) of a view of fair use which HEW attorneys might have to attack in order to defend another part (NLM). While there was no admitted causal relation between this apparent dilemma and the shortly subsequent withdrawal of proposed support for CICP by USOE, there is little doubt that it played a part.[16] CICP was left without support, unable to complete its contracts with the ASTM subscribers. It is interesting to speculate whether, had it not been cut off before taking root, the prototype copyright clearinghouse might not have satisfied the

economic and legal needs of both contestants. Ironically the Government, in taking the action, may have protracted resolution of the copyright photocopying problem by many years.

D. Terminal Joint Action by ASTM and CICP

The above background has been given because without it the analysis which follows would not be meaningful. Although ASTM had pioneered in setting up a copyright clearinghouse with CICP it was not prepared to carry this out alone. CICP, after nearly ten years of gradually increasing activity, was placed on a standby basis by its directors. Together, however, the two organizations tried to salvage some of the "pieces". The contracts with CICP called for member-libraries to record copying data, and for CICP to supply them with the resulting analysis. The libraries were still operating under their moratorium contract with ASTM, and some data could be obtained. ASTM undertook to send out an abbreviated questionnaire, although nothing like the exhaustive list of questions, or the study which had been planned,was possible. It could not ask the clearinghouse members, aware that the clearinghouse probably would not continue, to respond in depth. A short questionnaire was drawn, limited to simple, easily answered questions. CICP undertook to analyse the data and write the report. The remainder of this report describes questionnaire, data response and analysis.

II. Questionnaire and Data

The data are based on replies to the two-page questionnaire shown (completed) in Appendix B. Each participating library recorded on page 1 the copies it made of each ASTM publication and on page 2 totals of other copying, during a five-day working period. The five-day sample was recorded simultaneously in all libraries and repeated three times at three-month intervals, for a six-month coverage of the operation of the contract.

On page 1, below the names of the library and the official making out the form, is space for listing individual (identified) records of the four types of ASTM publication: Special Technical Publication (STP), Journal of Materials, Book of ASTM Standards, and Separate ASTM Standards. The last two simply represent the bound (final) and unbound (interim) publication of the same ASTM standards. All types are copyrighted and therefore were included in the moratorium on copying.

Page 2 contains space for three kinds of total: total number of copyrighted documents copied (including the previously listed ASTM documents), published documents (whether copyrighted or not), and total documents copied (whether published or not). In theory ASTM documents are included in copyrighted documents, copyrighted in published, and published in total copied--an inclusion relation. However, some respondents to the questionnaire did not observe this relationship. It was supplied where omitted, by adding data entered in a prior class to all those in succeeding classes. In one or two cases (shown by asterisk) missing data were extrapolated.

To correlate, if possible, with CICP's prior study on total and partial copying of journal articles, data were separately requested on documents "copied in full" and on documents "copied in part". Here again the division was not consistently carried out in replies to questionnaires (the instructions were probably not sufficiently specific). Therefore, only the sum ("in full" plus "in part") which is unaffected by the omission, has been used in drawing firm conclusions.

The report supplies data on the economics of copying--the estimated cost per page copied by each library, and the charge per page copied. Of particular interest in following the analysis is a table on the extent and continuity of participation in the clearinghouse. This is shown in Appendix C. All data used in this report are contained in Tables 1-5, and Appendix C.

III. Results

A. Participation by Organization and by Library

For reasons which will be clear, it was necessary to precede the analysis of copying by an analysis of participation. Appendix C shows that 46 organizations participated in the study--not all continuously, nor to the same extent. Seventeen organizations took part in all three samples. A few organizations participated through more than one library. A total of 52 different libraries reported at one or another period. However, in any one sample there were at most 40 participating libraries. Accordingly, statistics are presented in two ways: statistics for all libraries of all organizations participating in a given sample, and statistics for all libraries of the 17 organizations which participated in all three samples. Summaries of both are shown in Appendix C, in Table 1 (columns 2 and 3), and (graphically) in Figure 1.

The upper graphs in Figure 1 reveal an almost linear decline, for each succeeding period, in number of participating organizations and in number of their libraries. The number of organizations fell from 39 in the first sample to 27 in the third. The number of libraries fell from 40 to 31. The libraries of the 17 organizations represented an increasingly large fraction of the totals.

B. Active and Passive Participation

The above data refer to those libraries which participated by responding to the questionnaire. They do not, however, indicate whether the questionnaire supplied data. While 40 libraries partici-

TABLE 1 - NUMBER OF PAGES COPIED (IN THREE SAMPLINGS) - PART I

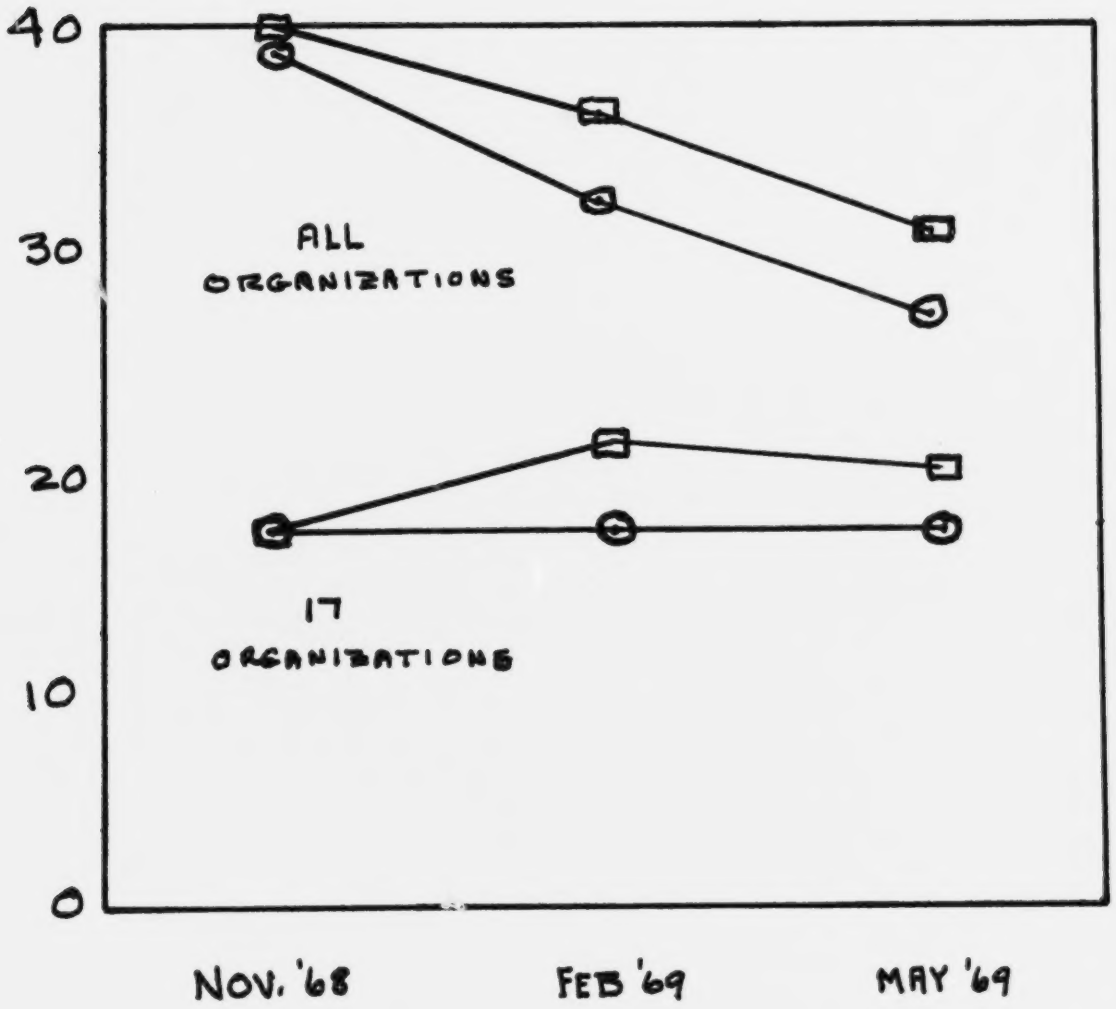
O, L : ORGANIZATIONS, LIBRARIES.
F, P, T : DOCUMENTS IN FULL, IN PART, TOTALS.
+AVERAGE. *ADJUSTED.

5-DAY SAMPLE PERIOD	NUMBER PARTICIPATING		IDENTIFIED COPYRIGHTED ASTM DOCUMENTS		
	O	L	F	P	T
NOV. 18-22 1968	39	40	213	91	304
FEB. 24-28 1969	32	36	209	41	250
MAY 19-23 1969	27	31	98	76	174
TOTALS	32.7+	35.7+	520	208	728
NOV. 18-22 1968	17	17	112	34	146
FEB. 24-28 1969	17	21	173	30	203
MAY 19-23 1969	17	20	28	52	80
TOTALS	17+	19.3+	313	116	429

TABLE 1 - NUMBER OF PAGES COPIED (IN THREE SAMPLINGS) - PART II

5-DAY SAMPLE PERIOD	TOTALS ONLY, NOT IDENTIFIED								
	COPYRIGHTED (INCL. ASTM)			PUBLISHED (INCL. COPYRIGHTED)			TOTAL COPIED (INCL. PUBLISHED)		
	F	P	T	F	P	T	F	P	T
NOV. 18-22 1968	4,377	4,359	8,736	5,385	10,475	15,860	77,573	25,403	102,976
FEB. 24-28 1969	4,699	3,501	8,200	6,332	10,323	16,655	92,168	24,678	116,846
MAY 19-23 1969	4,398	4,679	9,077	7,485*	9,489*	16,974*	88,881*	28,730*	114,611*
TOTALS	13,474	12,539	26,013	19,202	30,287	49,489	255,622	78,811	334,433
NOV. 18-22 1968	2,305	544	2,849	2,982	3,305	6,287	6,162	13,518	19,680
FEB. 24-28 1969	3,546	892	4,438	4,989	1,966	6,955	32,867	8,009	40,876
MAY 19-23 1969	3,020	3,578	6,598	6,332	4,295	10,627	26,619	22,187	48,806
TOTALS	8,871	5,014	13,885	14,303	9,566	23,869	65,648	43,714	109,362

FIG. 1 NUMBER OF PARTICIPATING ORGANIZATIONS AND LIBRARIES



⊙ NUMBER OF ORGANIZATIONS

▣ NUMBER OF LIBRARIES

pated in November, 1968 (Table 2, column marked "L") only 12 libraries indicated copying of ASTM publications, 18 that they had copied any copyrighted work, and 23 that they had copied any published or unpublished material, copyrighted or not (Table 2, columns marked "L & C", i.e., both participating and copying). Similar fractions are shown for the other sampling periods. Figure 2 repeats (solid lines) from Figure 1 the number of participating libraries ("ALL" and "17"), and in broken lines shows the numbers that both participated and reported copying of any kind (namely, the numbers in Table 2, column 15).

Some 57 percent of the first group ("All") also reported copying, and 65 percent of the second ("17"). In both groups there were significantly fewer libraries that reported copying ASTM publications than libraries that reported copying totals of unidentified documents (Table 2).

C. Intensive Participation

On the basis of the decreasing numbers of active participants in successive samples it might be concluded that the response to the questionnaire was dominated by the foreknowledge that the experiment marked the end, rather than the promised start, of an active copyright clearinghouse. Nevertheless, this was not entirely so. Some growth and significant changes occurred in copying habits. These were concealed by the changing sample composition. They were found only by comparing intensively, i.e., on a "per library" rather than "total library" basis. This required recomputing the data in Table 1 together with the data on participation (L) and active participation (L & C) in Table 2. In Table 2 each "matrix element" has two entries. The upper expresses the number

TABLE 2 - PAGES COPIED PER LIBRARY - PART I

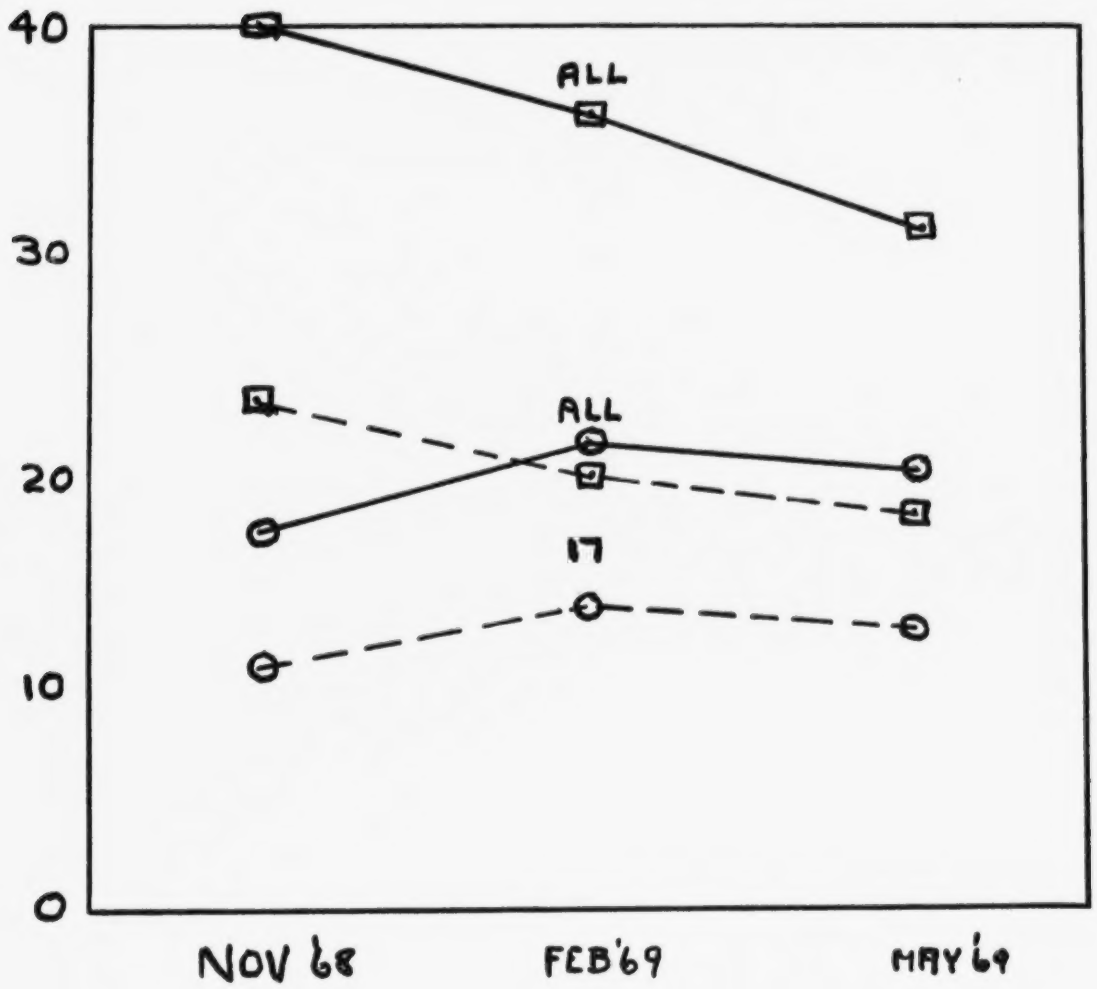
UPPER FIGURE: PAGES PER PARTICIPATING LIBRARY (L)
LOWER FIGURE: PAGES PER LIBRARY PARTICIPATING-AND-COPYING (L & C)

5-DAY SAMPLE PERIOD	NO. OF PARTICIPATING LIBRARIES L	IDENTIFIED COPYRIGHTED ASTM DOCUMENTS			
		L & C	F	P	T
NOV. 18-22 1968	40	12	5.3 17.8	2.3 7.6	7.6 25.0
FEB. 24-28 1969	36	6	5.8 34.8	1.1 6.8	6.9 42.0
MAY 19-23 1969	31	10	3.2 9.8	2.4 7.6	5.6 17.0
AVERAGE:	35.7	9.3	4.9 19.0	1.9 7.4	6.8 26.0
NOV. 18-22 1968	17	4	6.6 28.0	2.0 8.5	8.6 38.0
FEB. 24-28 1969	21	4	8.3 43.0	1.4 7.5	9.7 51.0
MAY 19-23 1969	20	5	1.4 5.6	2.6 10.0	4.0 16.0
AVERAGE:	19.3	4.3	5.4 24.0	2.0 8.9	7.4 33.0

TABLE 2 - PAGES COPIED PER LIBRARY - PART II

5-DAY SAMPLE PERIOD	TOTALS ONLY, NOT IDENTIFIED											
	COPYRIGHTED (INCL. ASTM)				PUBLISHED (INCL. COPYRIGHTED)				TOTAL COPIED (INCL. PUBLISHED)			
	L & C	F	P	T	L & C	F	P	T	L & C	F	P	T
NOV. 18-22 1968	18	109 243	109 243	218 486	23	135 234	262 445	397 690	23	1,939 3,370	635 1,103	2,574 4,477
FEB. 24-28 1969	16	131 294	97 219	228 513	20	176 317	287 516	463 833	20	2,560 4,608	686 1,234	3,246 5,842
MAY 19-23 1969	16	142 275	151 293	293 567	18	241 416	306 527	547 949	18	2,770 4,938	927 1,424	3,697 6,367
AVERAGE:	16.7	126 270	117 251	243 520	20.3	179 315	283 496	463 811	20.3	2,389 4,191	737 1,292	3,126 5,483
NOV. 18-22 1968	8	136 286	32 68	168 656	11	175 271	195 300	370 572	11	363 560	795 1,229	1,158 1,789
FEB. 24-28 1969	11	169 322	42 81	211 403	14	237 356	94 140	331 497	14	1,565 2,348	381 572	1,946 2,920
MAY 19-23 1969	11	151 275	179 325	330 600	13	317 487	215 330	532 817	13	1,331 2,048	1,109 1,707	2,440 3,754
AVERAGE:	10	153 296	87 167	239 463	12.7	247 376	165 252	412 628	12.7	1,132 1,728	754 1,150	1,886 2,878

FIG. 2. PARTICIPATION WITH AND WITHOUT COPYING.



of pages copied per library by all participating libraries. The lower shows the number of pages copied per library by libraries that participated and copied (Entries computed by dividing the number of pages in the matrix of Table 1 by the proper entries in columns 2,3,7,11 and 15 of Table 2). We now discuss the various classes of copying.

D. ASTM Publications: Copying In Full and In Part

In Tables 1 and 2 the number of pages copied from ASTM publications, which were individually identified by class, are shown on the same basis as the unidentified pages in the other three classes of copying reported. Since, however, the numbers were smaller, and more important in the sense that they directly record the impact of the moratorium on copying, they are studied in greater detail in Tables 3 and 4.

	Pages from documents copied in		Total pages	Full/Part
	full	part	copied	
Separate Standards	321	35	356	9.2
Book of Standards	184	167	351	1.1
Total	505	202	707	2.5

TABLE 4 - ASTM DOCUMENTS COPIED IN FULL AND IN PART

TABLE 3 - COPYING OF ASTM PUBLICATIONS BY ALL PARTICIPATING LIBRARIES

UNITS		FULL DOCUMENT				DOCUMENT IN PART				TOTAL
	ASTM PUBLICATION	SPECIAL TECHNICAL	JOURNAL OF MATERIALS	BOOK OF STANDARDS	SEPARATE STANDARDS	SPECIAL TECHNICAL	JOURNAL OF MATERIALS	BOOK OF STANDARDS	SEPARATE STANDARDS	
DOCUMENT COPIES	SINGLE COPIES	0	1	25	34	1	0	13	3	76
	MULTIPLE COPIES	0	0	9	4	0	0	7	4	23
	TOTAL COPIES	0	1	34	38	1	0	20	7	99
	MULTIPLES / SINGLE COPIES	-	0	0.36	0.12	0	-	0.54	1.33	0.30
DOCUMENT PAGES	PAGES, SINGLE COPIES	0	15	118	252	6	0	117	5	513
	PAGES, MULTIPLE COPIES	0	0	66	69	0	0	50	30	215
	TOTAL PAGES	-	15	184	321	6	0	167	35	728
	MULT. PAGES / SINGLE PAGES	-	0	0.56	0.27	0	-	0.43	6.0	0.30

Table 3 shows ASTM copying both in terms of copies of documents and of pages. The average number of pages per ASTM document was about 7.5. Copying was almost exclusively from two of the four ASTM publications--the Book of Standards and Separate Standards. As mentioned, these differ only in being bound together and not bound. Disregarding for the time being whether they were copied "in full" or "in part", Table 4 shows that bound and separates were copied in about equal numbers--350 pages each.

If, however, copying in full versus copying in part is taken into account, it is seen (Column 5, Table 4) the Separate Standards were copied in full about 9 times as frequently as in part; while Book Standards were copied equally in part and in full.

What is the explanation? Both findings must be viewed against the background of the CICP Report to USOE (p.63) that the ratio of journal articles copied in full to journal articles copied in part in U. S. libraries is nearly 100 to 1. Even if book copying (predominently "in part") is included, the ratio of U. S. documents copied in full to documents copied in part is 10 to 1. This suggests the probable explanation: the questionnaire was not sufficiently explicit in stating what was meant by "in full" and "in part". There was little doubt in the mind of the respondent to the questionnaire that copying all of a separate standard is copying it in full. This is supported by the ratio of 9.2 to 1 for separates copied, reasonably close to the CICP figure for copying by U. S. libraries. It suggests that a 7.5 page separate standard was viewed, in length and other properties, as the same, or very nearly the same, as a journal article. On the other hand, when the same standard was included in a bound book of standards, the respondent faced ambiguity. Was this

copying a "full standard" or a "part of a book of standards"? Half of the respondents to the questionnaire apparently interpreted copying a standard from a book as copying "in part", hence the low figure. As a consequence of this failure to construct the questionnaire sufficiently explicity (for which the author takes responsibility) only the figure for ASTM separates appears in any way consistent with other known results; and this ambiguity extends to much of the data in Table 1. It does not, however, invalidate the total figures (combined copying, in full and in part). While the distinction is retained in both Tables 1 and 2, less weight is put on this classification in the analysis than might otherwise have been the case.

E. ASTM Publications: Multiple Copying

The total number of ASTM documents copied during the experiment was nearly 100, totalling about 730 pages. Using the three-sample average number of participating libraries (35.7 libraries, Table 1 and 2) approximately 20 pages of ASTM publications were copied per library during the three weeks of recording. Using the average number of libraries that both participated and copied (9.3 libraries, Table 2) almost 80 pages of ASTM publications were copied per library.

The fact that this is not a large volume of copying, does not, of course, indicate the relative importance of ASTM publications to the participants. One copy of a standard in a library or company office can play a very significant role. The interest in these figures and those of Table 2 lies in whether they show some significant departure from the "single copy pattern" of U. S. library copying, and whether this can be

attributed to the copyright moratorium. The "single copy" pattern was established in the CICP Report to USOE (p. 83) for two independent samples of U. S. library copying, each taken in the absence of a copyright moratorium. There was an "almost negligible" percent of multiple copying (more than one copy of the same document made in the same transaction, i.e., at the same time).

Table 3 shows that (using as units either documents copied or pages copied) multiple copies represented over 23 percent of the total copies made; and the ratio of multiple to single copies was about 0.30. Assuming 80 pages per copying library, 56 were different, 24 were duplicate or multiple. In sum, the moratorium contract did not encourage all ASTM subscribers to make copies of ASTM publications, nor, in fact, to copy at all. But on the average, when a library did copy ASTM publications, it also felt free to make multiples. The moratorium contract definitely altered the "single copy pattern" of copying by U. S. libraries, and did so in the face of declining participation. One may speculate how much greater the change might have become had the foreknowledge been that the contract extending immunity would probably be repeated and expanded into a full, continuing national operation.

F. Time Analysis of ASTM Copying, an Unexpected Effect; Average Access Time.

An unexpected effect of the experiment was found by examining the volume of copying of ASTM publications in the three successive sampling periods. On a time basis (Table 1) the volume of copying declined sharply, both for "all libraries" and for the libraries of the 17 organizations that participated in three samples. See Fig. 3, lower

line. The decrease was close to 60 percent. However, there was no decrease, and in fact there were increases on the order of 50 to well over 100 percent, in the volumes reported for classes of copying other than from ASTM publications (See upper lines in Figure 3). These increases in total copying occurred in spite of decreased library participation. However, the effect is not connected with total copying. This is shown by the "per library" figures of Table 2 and Figure 4. The same downward trend is shown. The effect is so marked that one might conclude that the moratorium contract was working in reverse--to inhibit copying of ASTM publications!

The improbability of the correctness of such a conclusion was very great. Standards play an increasing role in the national technical economy. On an intuitive basis, the actual use of standards in a randomly selected period such as the six months of the experiment should not fluctuate by so large an amount. On the whole one looks for a slow increase in use of standards. It seemed more probable, therefore, that some "masking" effect was taking place, perhaps induced by the experiment itself. Re-examination of the questionnaires provided a clue. One or two commented that the library does not make copies of ASTM standards, but prefers to buy them from ASTM. This is, of course, not new--ASTM sells standards and in fact depends on this source of income. But the remark recalled the reason that ASTM had initially become interested in investigation of the copyright photocopying problem. ASTM had found, previous to the contract, a slow, almost uninterrupted decline in its revenue from sales. The loss was hypothetically attributable to the rapidly spreading use of reprographic equipment. The paradox now was that the number of

FIG. 3 VOLUME OF COPYING BY SAMPLE PERIOD

NOV 1968

FEB 1969

MAY 1970

100,000

TOTAL COPIED

TOTAL PUBLISHED

10,000

TOTAL COPYRIGHTED

1,000

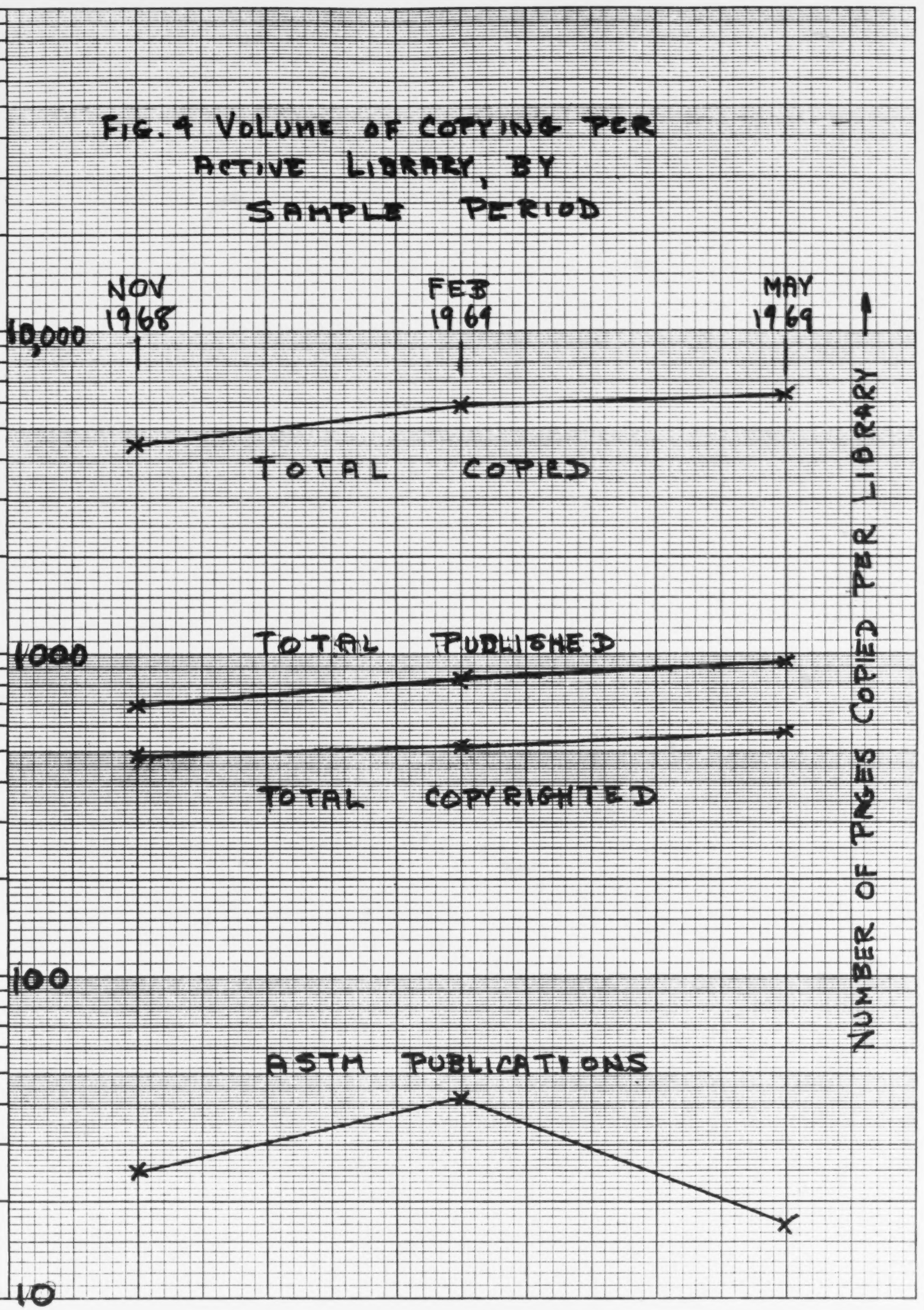
ASTM PUBLICATIONS

100

NUMBER OF PAGES COPIED

K&E SEMI-LOGARITHMIC 359-81
KEUFFEL & ESSER CO. MADE IN U.S.A.
4 CYCLES X 70 DIVISIONS

FIG. 9 VOLUME OF COPYING PER ACTIVE LIBRARY, BY SAMPLE PERIOD



SEMI-LOGARITHMIC 359-81
KEUFFEL & ESSER CO. MADE IN U.S.A.
4 CYCLES X 70 DIVISIONS

ASTM multiple copies increased while the total number of copies of ASTM publications decreased. The possible explanation was that two, not one, more or less independent changes were taking place. The second, not shown on the questionnaire and therefore not in the data, was renewed purchasing from ASTM. The questionnaire, and the moratorium contract in general, were probably responsible. In drawing his attention to the photocopying problem, the librarian was made more aware of the alternative to copying--purchasing reprints from ASTM. This would be reinforced by the act of filling out the questionnaire--a chore to the librarian which again reminded him of a way to reduce record-keeping--by purchasing instead of copying.

The hypothesis was confirmed by ASTM. Shortly after the start of the moratorium contract there was a small but noticeable reversal in the trend in ASTM volume of sales. The increase was sufficient to account for the above decrease in copying.[17] The unexpected outcome, even more directly favorable to copyright owners and users than increased copying, shows that the social and economic role of a copyright clearinghouse may be to help solve the photocopying problem in more than one way. The solution of giving the user greater awareness of available publisher resources is naturally more important when the premium on access time is not too high. ASTM standards are vital but the access time is not always critical--in many cases a few days or a week is sufficient. If this logic is correct, then the <u>average access time</u> is a parameter which strongly affects the utility of a copyright clearinghouse. It may be surmised that there would have been less of a drop in reported copying of ASTM standards, and less of a rise in standards purchased, had the average access time to ASTM standards been significantly shorter.

G. Other Copying Classes

As described in Section II, ASTM copying was recorded in detail on page 1 of the questionnaire, while on page 2 three classes were arranged so that each was inclusive of those preceding it. All totals, including total ASTM copying, are shown in Tables I and II, and graphically in Figures 3 and 4.

In Section III-F the departure in the trend in copying volume as between ASTM publications and all other classes copied has been discussed and presumably explained. However, the other volumes rose while the number of participating libraries fell (Figures 1,3,4). Several explanations may be advanced. One was an actual rise in copying during the six-month period of the experiment. Another is more complete record-keeping. A third is a possible change in attitude to reporting. There was not, however, enough evidence to decide between these. Therefore, the only conclusion drawn here is that, in the three successive reporting periods, a decreasing number of libraries reported increasingly more copying in all classes (except that of ASTM publications). Since these are two seemingly opposed systematic effects, it seems reasonable to suppose that if the number of participating libraries had been stabilized the increase in reported copying would have been even more significant. Explanation of this effect may be a good point of departure for a subsequent investigation.

In spite of this evidence of cross currents affecting the data, the data are rather closely consistent with prior independent samples of data on U,S. library copying. One of the figures of considerable interest in design of a copyright access-permission system is the percent of

copyrighted material copied to total published material copied. For the three sample periods the respective percentages, for all participating libraries, were:

		Nov. 1968	Feb. 1969	May 1969	Average
$\frac{\text{Copyrighted}}{\text{Published}}$	x 100	55	49	54	52.5

The average figure, 52.5 percent, compares with 54 percent found in the only other previously measured sample of this ratio--the national sample of U. S. library copying in the CICP Report to the USOE (p.71).

Another figure, possibly of wider interest, is the percent of published material copied to total material copied. This reflects the relative volume of private (internal, office and similar) copying, and copying of material in the public domain. For the same data (all participating libraries) the percentages were:

		Nov. 1968	Feb. 1969	May 1969	Average
$\frac{\text{Published}}{\text{Copied}}$	x 100	15	14	15	14.5

The heavy preponderance of internal copying is shown by the fact that the published material copied represents only about 15 percent of the total. On the same basis, and using the two averages found above, the total copyrighted material copied was only 7.6 percent of all material copied during the period. This figure falls within the 5-10 percent range for the national average estimated at various times by CICP and by other authorities.

Since these two ratios are consistent with other values independently found, they lend support to the findings and to the hypothesis that the sample of copying by libraries represented by the data used

in this report is drawn from the same universe of copying as were the samples in the CICP Report to the USOE. This statement is only presumptive without a statistical test of significance, which, however, time did not permit.

H. Charge Per Copy; Estimated Cost Per Copy

Nearly all reporting libraries made no charge per copy for their copying service. Of those libraries that reported, the average distribution (for the three periods) was:

No charge	28 libraries
$0.05 per page	2 libraries
$0.10 per page for first page, $0.05 for others	1 library

This distribution of charges is interesting in comparison with that of the 66-library sample in the CICP-USOE Report (Table XXIX). The two distributions are shown graphically in Figure 5. Both distributions contain a large number of "no charge" libraries. However, the ASTM-CICP distribution consists almost entirely of them while the 66-library sample does not. The differences in the distributions reflect, not the type of library, but the financial structure. In the case of the ASTM-CICP sample, nearly all the libraries are funded by parent organizations. Copying for their clients is absorbed as a service cost. In the case of the 66-library sample most of the libraries are independent, and in consequence depend upon charges to clients for copies in order to meet costs. The 66-library curve may therefore be regarded as two superimposed

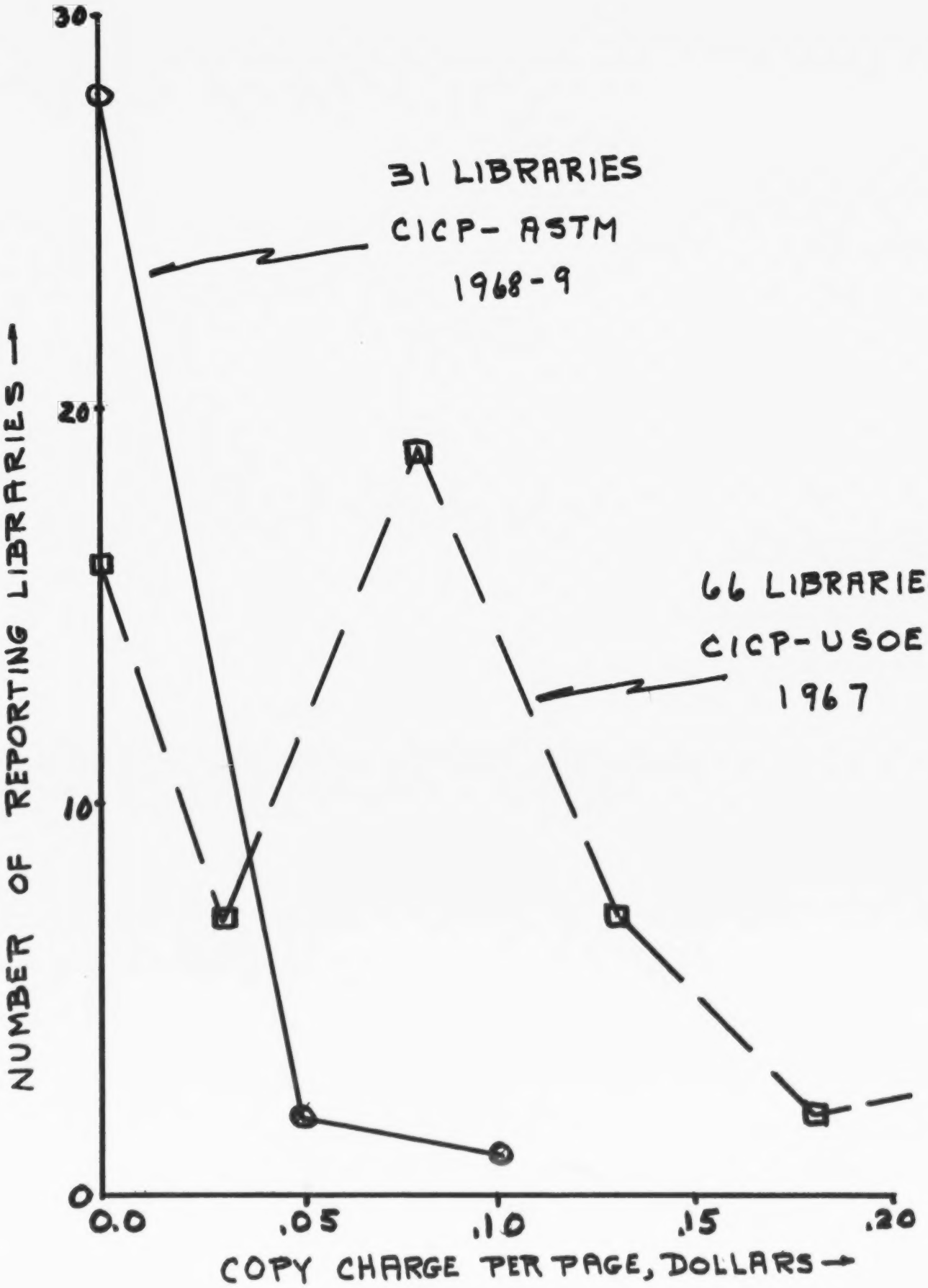


FIG. 5 DISTRIBUTION OF LIBRARY CHARGES PER SHEET COPIED

distributions--one characteristic of a financial structure in which costs of copying for clients are absorbed; the other characteristic of a direct charge to clients. It should be reiterated, however, that these differences in financial structure do not imply differences in type of library population as described by user-characteristics or other characteristics than those of finance or intra-organizational relationship.

Estimated costs per page copied are tabulated in Table V, together with statistics of the distribution. Figure 6 shows the distribution graphically. The estimates ranged from $0.01 to $0.10 per page, with a mean of $0.046 and mode of $0.05. Since the standard deviation was about $0.02, over two thirds of the estimates were within the range $0.03 to $0.07. Those few libraries that charged $0.05 per page presumably met their direct costs (labor probably not included).

Both the "charge per copy" and the "cost per copy" distributions supply important parameters not only for the general economics of libraries, but for the design of special systems such as a system of copyright access-permissions-payments. One of CICP's interrupted projects was to study the possibility of such a system using a flat, single charge per page for all copying. The amount of such a charge would be periodically adjusted by optimization of a number of distributions of library--and publisher--costs, volume, and user-utility functions.

TABLE 5 - ESTIMATED COST PER SHEET COPIED

ESTIMATED COSTS (C) DOLLARS PER SHEET COPIED	NUMBER OF ESTIMATES (N) NOV. 1968	FEB. 1969	MAY 1969	TOTAL	C x N
.01	0	0	1	1	.01
.02	0	2	2	4	.08
.025	1	2	2	5	.125
.03	1	2	0	3	.090
.031	0	1	0	1	.031
.035	0	1	0	1	.035
.037	1	0	0	1	.037
.04	4	4	3	11	.440
.041	1	1	0	2	.082
.05	8	2	4	14	.700
.06	1	1	2	4	.240
.07	1	1	0	2	.140
.074	1	1	1	3	.222
.10	1	1	1	3	.300
TOTALS	20	19	16	55	2.458
AVERAGES	.0498	.0432	.0446	.0460	

MEDIAN:	$0.0410	/ SHEET	COPIED
MEAN:	0.0460	/ "	"
MODE:	0.05	/ "	"
RANGE:	.01-.10	/ "	"
STD. DEV.:	$.0198 ≈ .02	/ "	"

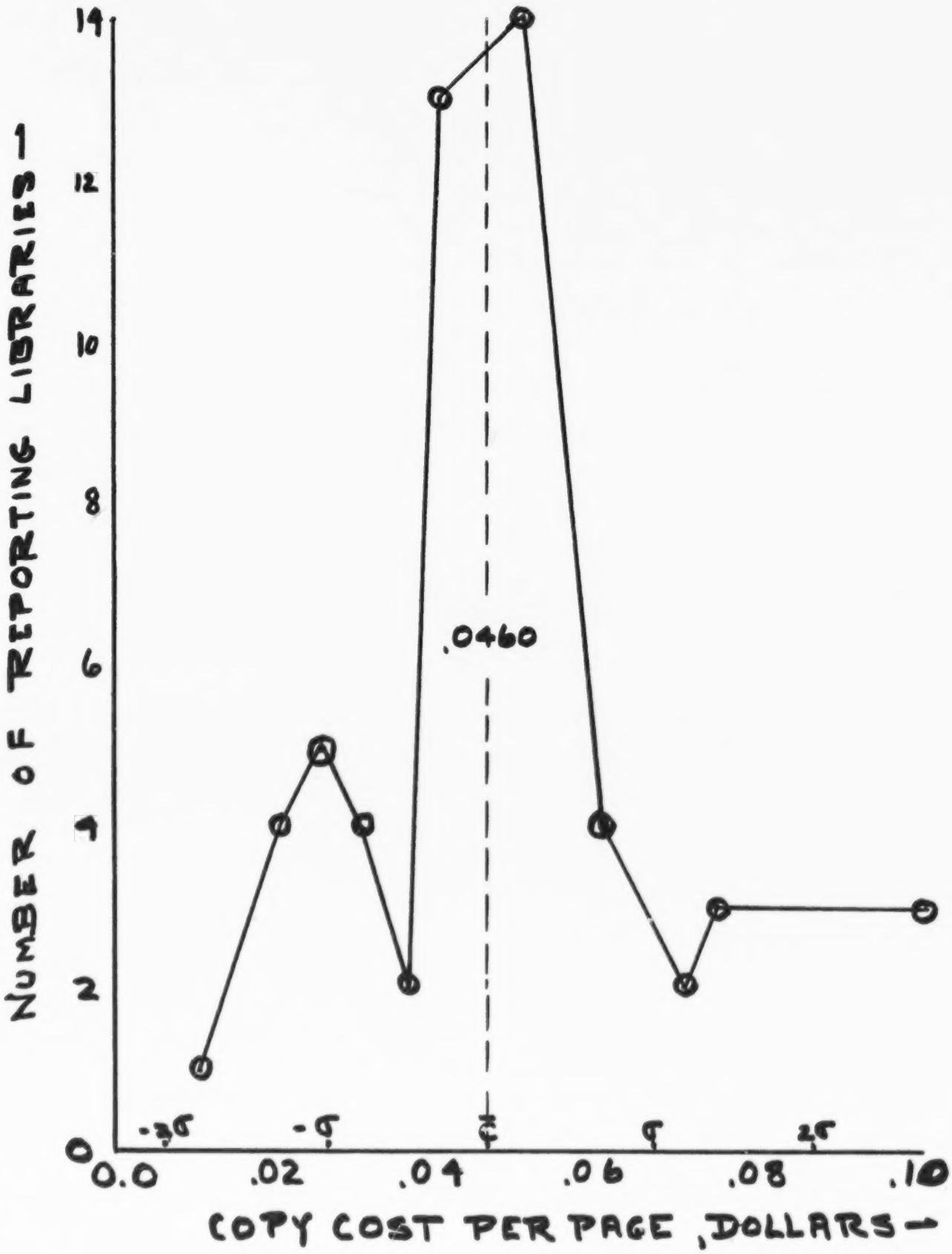


FIG. 6 DISTRIBUTION OF 55 LIBRARY ESTIMATES OF COST PER SHEET COPIED

IV. Conclusions and Recommendation

A. Conclusions

1. Although it started auspiciously, the copyright moratorium contract experiment was partially but not wholly aborted by foreknowledge that it would not, as had been pledged, eventuate into an operational copyright clearinghouse.
2. The moratorium contract produced a significant change in the "single copy" copying pattern previously displayed by U. S. libraries. Whereas other CICP samples of U. S. library copying (in the absence of a copyright moratorium) reported almost negligible multiple copying, nearly 25 percent of ASTM publications copied under the moratorium were multiple copies.
3. An unexpected effect of the moratorium contract was a renewal of purchases from the publisher, ASTM. It is attributed to greater awareness of the copyright photocopying problem together with a sufficiently long average access time for its literature so that direct purchase instead of copying was an advantageous alternative.
4. It is probable that the sample of libraries in the ASTM-CICP moratorium experiment is drawn from the same population of U. S. libraries as were other samples tested for copying by CICP.

B. Recommendation

It seems reasonable to assume that were the ASTM-CICP copyright moratorium contract or a similar contractual system re-activated with greater assurance of permanence, this would not only assist in solving the copyright photocopying problem but might become a vehicle for solving similar copyright problems not already taken care of by copyright organizations. It is therefore recommended that a renewed effort be made, preferably by the private sector with government (or other neutral) sponsorship and support. The effort should start with more extensive and intensive studies and plans needed to firmly establish a high probability of success.

References and Notes

1. American Society for Testing and Materials, 1916 Race St., Philadelphia, Pa. 19103. Address A. L. Batik, Director, Publications Operations.

2. Committee to Investigate Copyright Problems Affecting Communication in Science and Education, 7315 Wisconsin Ave., Bethesda, Md., 20014 Address G. J. Sophar, Secretary.

3. Professor of Information Science, School of Library and Information Services, and Computer Science Center, University of Maryland, College Park, Md. 20740. Chairman, CICP Study Group.

4. "First Annual Report by CICP Study Group," Committee to Investigate Copyright Problems Affecting Communication in Science and Education, May 10, 1960, reprinted with addenda December 13, 1961, Bulletin of the Copyright Society of the U.S.A., Vol. 10, No. 1, October 1962.

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6. Hearings on Copyright Law Revision, H. R. 4347, before Subcommittee No. 3 of the Committee on the Judiciary, House of Representatives, 89th Congress, First Session. Serial No. 8, Part 3. Statements of June 30, 1965 by

   (a) The Committee to Investigate Copyright Problems Affecting Communication in Science and Education (CICP), pp. 1470-83.

   (b) American Textbook Publishers Institute (ATPI), pp. 1439-40.

7. Hearings Before the Subcommittee on Patents, Trademarks, and Copyrights of the Committee on the Judiciary, United States Senate, 90th Congress, First Session, Pursuant to S. Res. 37, on S. 597. Part I, Statement of March 15, 1967 by Dr. Howard A. Meyerhoff, accompanied by Gerald J. Sophar and Dr. L. B. Heilprin, Committee to Investigate Copyright Problems Affecting Communication in Science and Education, pp. 107-140.

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13. Joint Libraries Committee on Fair Use in Photocopying: "Report on single copies" Special Libraries 52: 251-5, May-June 1961, Bulletin of the Copyright Society of America 9:79-84, October 1966.

14. Copyright -- A Librarian's View, V. W. Clapp, Association of Research Libraries, Washington, D. C. August 1968.

15. Historical Perspective on Copyright Law and Fair Use, W. L. Pforzheimer, in Reprography and Copyright Law, L. H. Hattery and G. P. Bush, editors. American Institute of Biological Sciences, Washington, D. C., 1964, Section II (4), p. 32.

16. Copyright Problems: Did Suit over Photocopying Kill Research Project?, P. M. Boffey, Science, Vol. 160, 21 June 1968, pp. 1324-5.

17. ASTM sales of standards rose about 3 percent in the period. Communication from A. L. Batik.

APPENDIX A

Agreement

Copyright Study

This agreement made , 1967, between the American Society for Testing and Materials, 1916 Race Street, Philadelphia, Pennsylvania 19103 (hereinafter referred to as "ASTM") and the Committee to Investigate Copyright Problems, Inc., 2233 Wisconsin Avenue, N.W., Washington, D.C. 20007 (hereinafter referred to as "CICP") witnesseth:

I. Copyright law gives to the author--in this case ASTM--the exclusive rights to his writings. This right is virtually complete except for the court-developed concept of "fair use," which allows very limited copying of material for such practical reasons as review and quotation. The practical value of this right is an economic one. It encourages an author or publisher to invest in the preparation of materials such as ASTM Standards because he is assured that he will receive income based on the extent to which he can market and distribute the publications. Modern duplicating and information storage, retrieval and dissemination technology is possibly eroding the income value of ASTM copyrights and certainly not providing it with a fair return from the increased distribution of the material that results from the users' use of this technology.

ASTM is in agreement with CICP's goal "to find a way to protect the 'exclusive right' of an author to his 'writings,' while permitting the advantages of modern information systems to become as useful as they may without weakening or threatening the economic urge and the need to create." ASTM is aware of the U.S. Office of Education supported study now under way being done by CICP to determine the knowledge and understanding of copyright law by information clearinghouse managers and their legal counsellors; to obtain information on programs which have been aborted, curtailed, or suspended because of copyright; and to develop guidelines to evaluate the quantity, quality and economic value of copyrights materials, and is interested that the preliminary effort be continued and expanded.

1. CICP's objectives as described in its certificate of incorporation, September 21, 1960, are:

The particular business and objectives of the society shall be: as a nonprofit corporation, in the interest of improved scientific and educational communication and in furtherance of national defense and the public welfare, (a) to determine the facts with respect to the dissemination of scientific and educational information as it is affected by copyright and (b)

to develop, and to assist in the implementation of, a plan under which the making of copies of copyrighted material might be suitably authorized on a basis fair to the owners of the material and to the makers, distributors and users of such copies.

2. ASTM is an international, privately-financed, nonprofit, technical, scientific and educational society, primarily engaged in publishing standardization of methods of test, specifications, recommended practices, definition of terms, and of data relating to materials. More than 60% of its income is derived from the sale of Books of Standards, technical proceedings and other materials to industry, institutions and to other organizations requiring engineering data, as well as to individual engineers.

II. Therefore:

1. ASTM appoints CICP the exclusive agent and sole organization to execute the offer of a two-year moratorium to users of ASTM materials and publications in accordance with sections 3-7 of the basic agreement which ASTM is prepared to offer any user of ASTM materials or publications.

2. ASTM will work closely with and assist CICP to make agreements similar to this one with other engineering societies in order to add strength to the premise stated in section 7 of the agreement between ASTM and the individual users of ASTM materials and publications, so that the basic offer of a two-year moratorium to the user will cover the widest title list of engineering publications and materials possible, so that the planned surveys will encompass as broad a base of engineering publications and data as possible. The reference to engineering societies is illustrative and natural, but does not infer that the effort is limited to engineering societies.

3. CICP guarantees ASTM continuous accessibility to the survey and ASTM and CICP mutually agree to the specific statement in section 5 of the agreement between ASTM and the individual user of ASTM materials or publications.

4. ASTM will make a joint effort with CICP and any other engineering societies which may enter into similar agreements to obtain the necessary grants and support contracts to implement the proposed surveys and evaluations, and eventual design of a system of access and payments. The reference to engineering

societies is illustrative and natural, but does not infer that the effort is limited to engineering societies.

5. ASTM will pay CICP $50 per publication per year during the two-year period of the contract (minimum, $250; maximum, $500) and will designate a delegate to CICP Standing Committee 2--Scientific and Learned Societies which Publish Journals.

6. CICP will provide ASTM with a half-yearly progress report on the survey effort and any other pertinent data as a result of this effort.

7. Both CICP and ASTM will provide direction and take responsibility for the joint effort to sign user participants agreements to the ASTM-offered moratorium. As soon as funds become available CICP will appoint a full-time contract negotiator to direct this phase of the program as well as the negotiation of similar agreements with other societies. ASTM agrees to finance the first printing and mailing of the ASTM offer and description of the moratorium to the users of ASTM materials or publications.

8. This agreement is for a period of two years and may be renewed for a like or shorter period with the mutual consent of ASTM and CICP.

In Witness Whereof, the parties have executed this Agreement this 29th day of June, 1967.

American Society for Testing and
Materials by:

/s/ Thomas A. Marshall, Jr.
Executive Secretary

The Committee to Investigate Copyright
Problems, Inc. by:

/s/ Gerald J. Sophar
Executive Director

THE COPYRIGHT PROBLEM and YOU

American Society for Testing and Materials

. . . formed for the Promotion of Knowledge of the Materials of Engineering, and the Standardization of Specifications and the Methods of Testing.

Committee to Investigate Copyright Problems

The particular business and objects of the society shall be: as a nonprofit corporation, in the interest of improved scientific and educational communication and in furtherance of national defense and the public welfare, (a) to determine the facts with respect to the dissemination of scientific and educational information as it is affected by copyright and (b) to develop, and to assist in the implementation of, a plan under which the making of copies of copyrighted material might be suitably authorized on a basis fair to the owners of the material and to the makers, distributors and users of such copies. ***Certificate of Incorporation, Committee to Investigate Copyright Problems Affecting Communication in Science and Education, September 21, 1960.***

This brochure is addressed to every user of scientific, technical, sociological and educational information regardless of whether his role in the information transfer process is that of administrator, librarian, information specialist, system designer or ultimate user. It discusses what is now known as the copyright dilemma and offers a way out.

Background

The past decade has been witness to a movement in the direction of more efficient methods of duplicating and disseminating published information. These developments affect the work whether it is copyrighted or not. Technology sometimes is insensitive to law and its purpose. The available technology has far outdistanced our ability to cope with its many social, economic and legal effects. The venerable and well-established copyright principal specifically provided for by the constitution has become partly distorted.

> **"To promote the progress of Science and useful Arts, by securing for limited Times to Authors and Inventors the exclusive Right to their respective Writings and Discoveries." US Constitution, Art. I, sec. 8.**

Though the Register of Copyrights and the Congress have put extraordinary effort into writing a copyright Revision Bill (HR 2512, S. 597, passed by the House on April 12, 1967) the Bill is able to describe only the rules under which the copyright owner and the user of the published material shall operate. Neither current law nor the anticipated new law provide the means and system for its implementation.

Almost complete data gathered by CICP for a study now in progress indicates that the effective circulation of most scientific and technical journals, handbooks and special publications is increasing rapidly. Photocopies have more than replaced interlibrary loans and internal circulation of journals and monographs. They have actually expanded the use made of these materials.

Impact of Technology

These data indicate that the scientific societies which, through their membership, have done the most to develop information handling tools and media are the ones most hurt by them. Their dedicated purpose has been to make every bit of useful knowledge available.

The societies, keeping faith with their memberships, have been in the vanguard in designing, testing, evaluating and offering new ways to control and disseminate information. This responsibility was recognized before the "Responsibilities of the Technical Community and the Government in the Transfer of Information Report" issued by the President's Science Advisory Committee, January 10, 1963, reiterated the importance of this aspect of a society's program.

These efforts have not produced proportionately larger incomes for the publishing society. All of the machines, media and systems used by modern information transfer processes: electrostatic printers, microforms, computers, telephone lines and facsimile printers, are paid for on a use basis. The copyright owner's property is reused by duplication without his consent. Yet much of the modern information network exists for and because of this material. The beneficiaries of these advances are not paying their fair share for the use of the materials, and this imbalance should be corrected in the interests of equity and for the ultimate benefit of all parts of our scientific, technological, social and educational community.

We believe that the increased circulation resulting from information transfer technology, combined with the rights of copyright, can become the means to eliminate the deficits inherent in much of professional publishing.

Until this decade the rights inherent in a copyright were not very important to publication management. The high cost of infringement was the greatest deterrent against infringement. Copying was expensive, slow and inconvenient. No harm resulted, as there was no potential, meaningful income from copying available to the societies.

The Government, industry, commercial publishing, society publishing, libraries and education did not anticipate the problem and provide an adjusting mechanism to uncontrolled second- and third-level publishing.

CICP and ASTM have now decided to provide a solution. This then is a clear attempt to implement, test and gradually establish a clearance system of access, permissions and payments for scientific, technical, social and educational information which will permit lawful copying, computer storage and facsimile transmission, while providing increased income for professional publications.

OVER PLEASE

The Societies' Dilemma

It is clear that despite the rights of copyright, the societies are helpless to prevent copying from their publications, nor are they interested in doing so. Copying obviously assists the societies' mission of obtaining the widest, most effective dissemination of the published papers, data, tables and monographs carrying the societies' imprint. This pleases the authors, the memberships, and the societies' managements. If it were not for the fact that the elements that make up a society's cost of publication are the same as those of a commercial publication and that the measurable circulation is usually considerably smaller, there would be no reason for concern.

As copying has increased, the publisher (commercial and nonprofit) sought ways to limit what he considered some thoughtless practices on the part of his customers. It is becoming more apparent that the societies are almost completely helpless against the user who is satisfied that his infringement is not an infringement at all, or if it is, it is for a good purpose.

Because we are asking the readers of this brochure to enter into an agreement, the next several paragraphs discuss some aspects of copyright law that are either not understood or have become confused.

Copyright: What is it?

Copyright is a constitutional exclusive property right in a particular work given by the government to the creator of the work in exchange for assurance of publication or dissemination. This right stems from the common law right which existed before publication. Publication without this protection means anyone can republish the work and share unfairly in any benefits from it. Certainly, every society completes its part of the bargain as it publishes. The purchaser of a copyrighted work does not have the right to reproduce it in whole or in part, singly or in quantity, except with the permission of the copyright owner or within the very limited concept of "fair use".

Infringement and Fair Use: What are they?

Infringement is a legally actionable trespass of another's work. Essentially each and every copy of a copyright work made without permission is an infringement. "Fair use" is a much-misunderstood, court-developed concept. It prevents the right of a copyright from being enforced in absurd situations: thus a scholar or newspaper should not be prevented from making a reasonable quotation, nor should a critic not be allowed to present part of that which he is reviewing. Neither current law nor the "fair use" guidelines in Section 107 of HR 2512 passed by the House of Representatives on April 11, 1967 exempts the widespread infringement by photocopying. Section 107 of the Copyright Revision Bill makes "fair use" a matter of statute.

These are guidelines for the courts, a warning to the potential infringer, and a statement that the copyright owner may not indulge in harassment. Nothing in this section gives a blanket exemption from infringement liability.

No quantitative measure is included in the guidelines. The myth that the making of a single copy may somehow free the infringer from liability receives no credence. Any information system or network now in existence or contemplated which reproduces, transmits or displays copyrighted works subsists on a very tenuous basis unless arrangements are made for copyright clearance.

The Positive Approach to a Solution

Laws of equity do not function because of the police powers of the state, but because the concerned parties find it advantageous to comply, because it is reasonably possible for them to comply and because the capacity and the mechanism for self-enforcement exists with only occasional recourse to the courts for judgment and redress.

The laws of copyright equity do exist. It is advantageous and beneficial for both the copyright owner and the user to comply. But no mechanism has existed for self-enforcement of the law since the emergence of reprographic and computer technology. It should be understood that NO MATTER HOW THE NEW COPYRIGHT LAW IS WRITTEN OR IF IT IS NEVER WRITTEN AND PASSED, THE COPYRIGHT HOLDER WILL STILL RETAIN HIS ESSENTIAL BUNDLE OF RIGHTS AND NO MATTER WHAT THE LAW WILL EVENTUALLY BE, MODERN INFORMATION TRANSFER METHODS CAN BE USED TO VIOLATE THESE RIGHTS WITH COMPARATIVE IMPUNITY.

CICP with the assistance of ASTM is now taking the first step to provide the mechanism which has been missing in the copyright system—A CLEARANCE SYSTEM FOR ACCESS AND PAYMENTS WHICH WILL BE BENEFICIAL TO BOTH COPYRIGHT OWNER AND USER OF COPYRIGHTED MATERIALS.

THE OFFER

Any library, information center or user station will be free to reproduce ASTM materials as long as they are willing to do the following:

1. Join CICP for $50 yearly dues.
2. Provide reasonable access and keep reasonable records of how ASTM materials are copied, disseminated, or placed in a computer-based storage system.

In turn ASTM through CICP offers:

1. A two-year moratorium during which the user may freely use ASTM materials and reproduce and disseminate up to 50 copies of any item.
2. A guarantee that the data gathered will be used solely for designing a practical system of permissions and payments, and that none of the gathered information will be used by ASTM for the purpose of legal proceedings against the cooperating institution.
3. The participating resource center will be represented within CICP on Standing Comittee 7—"Libraries and Information Systems, which on Request Make and Distribute Copies."

The significance of this offer is that it provides for:

1. A moratorium between publisher and user.
2. It recognizes that both are parts of a common system.
3. It provides for fact gathering and cooperation.
4. It aims toward a step-by-step creation of a copyright clearinghouse with effective representation of both user and copyright holder.
5. It aims toward a voluntary solution between user and copyright holder rather than by government edict.

Recognizing that our discussion, in this report is no final answer to a problem of shifting dimensions, we urge that those affected join together in an effort to establish a continuing understanding as to what constitutes mutually acceptable practices, and to work out means by which permissions for uses beyond fair use can be obtained easily, quickly, and at reasonable fees. Various proposals for some type of Government regulation over fair use and educational reproductions have been discussed since the hearings, but the committee believes that workable voluntary arrangements are distinctly preferable.

Unauthorized library copying, like everything else, must be judged a fair use or an infringement on the basis of all of the applicable criteria and the facts of the particular case. Despite past efforts, reasonable arrangements involving a mutual understanding of what generally constitutes acceptable library practices, and providing workable clearance and licensing conditions, have not been achieved and are overdue. The committee urges all concerned to resume their efforts to reach an accommodation under which the needs of scholarship and the rights of authors would both be respected.

From the Report accompanying Copyright Law Revision H.R. 2512—Mr. Kastenmeir.

Research and Standards for Materials

AMERICAN SOCIETY FOR TESTING AND MATERIALS

1916 RACE STREET, PHILADELPHIA, PENNSYLVANIA 19103 · Telephone: 215 LOcust 3-5315

OFFICE OF THE
EXECUTIVE SECRETARY

October 1967

Dear ASTM Member:

The introduction of office duplicating machines and computer-based information centers is having a growing effect on the income the Society derives from the sale of its copyright publications. The Society recognizes the need of its members for rapid and widespread dissemination of the information supplied in its publications. The Society recognizes the desirability of allowing members to reproduce material for which ASTM holds a copyright. However, the promiscuous use of its material may have the ultimate effect of jeopardizing the ability of the Society to produce this material, thus the source will be dried up.

ASTM has entered into an agreement with the Committee to Investigate Copyright Problems (CICP) to study this problem. The purpose of this study is to develop a method to allow use of ASTM material through a system of access and payments. As an initial step, reproduction without payment may be made under the conditions stated below:

Any library, information center or user station will be free to reproduce ASTM materials as long as they are willing to do the following:

1. Join CICP for $50 yearly dues.
2. Maintain and provide reasonable records of how ASTM materials are copied, disseminated, or placed in a computer-based storage system.

In turn, ASTM through CICP offers:

1. A two-year moratorium during which the user may freely use ASTM materials and reproduce and disseminate up to 50 copies of each item.
2. A guarantee that the data gathered will be used solely for designing a practical system of permissions and payments, and that none of the gathered information will be used by ASTM for the purpose of legal proceedings against the cooperating institution.
3. ASTM and CICP have agreed that the participating resource centers will be represented within CICP on Standing Committee 7--"Libraries and Information Systems, which on Request Make and Distribute Copies".

If you are not directly concerned with this matter, it is essential that your organization be advised that it may participate; and it is requested that this letter, the enclosed brochure and contracts be forwarded to that individual in your organization who decides such matters.

Please note that reproduction without entering into the offered agreement is <u>not</u> being made and that official action is requested of your organization.

If your organization is interested, please forward two signed contracts (one will be returned) to me with a check for $50 made payable to the Committee to Investigate Copyright Problems. We would appreciate hearing from you by 1 December, 1967.

Sincerely yours,

T. A. Marshall, Jr.

T. A. Marshall, Jr.
Executive Secretary

ALB/pdc

Agreement

For Extended Use of Publications

This agreement made
between the American Society for Testing and Materials, 1916 Race Street, Philadelphia, Pennsylvania 19103 (hereinafter referred to as "ASTM") and

witnesseth:

1. **ASTM is the copyright owner of its publications. The sale of any of these publications does not carry with it the right to reproduce any publication in whole or in part, by photocopying, electrostatic copying, or any other copying method; nor does it carry the right to convert the copyrighted material to magnetic tape for data manipulation, storage, retrieval, or dissemination by computer printout, display or remote facsimile transmission.**
2. **Information storage, retrieval and dissemination programs depend on the ability to duplicate documents.**
3. **No system of permissions and payments exists to compensate ASTM for the use of its publications as the source document for duplication either by mechanical, electronic or photomechanical means. Nor does an equitable pricing structure or accounting system exist so that a user of ASTM publications can make proper payment to ASTM for duplicating ASTM's publications.**
4. **To make possible the widest use of ASTM publications in information storage, retrieval and dissemination programs, and to permit the widest possible duplication of ASTM's publications, ASTM has appointed the Committee to Investigate Copyright Problems, Inc., 2233 Wisconsin Avenue, N.W., Washington, D.C. 20007 (hereinafter referred to as "CICP") to develop a system of access, permissions and payments equally beneficial to ASTM and users based on actual use statistics.**
5. **To facilitate the development of accurate data, ASTM agrees to suspend certain of its copyright privileges for a two year period. During this period of time.....**
   .....may duplicate ASTM publications for any information storage, retrieval, or dissemination program free of any threat of suit for infringement or injuncture proceedings, providing that at no time, no more than 50 copies of any work is made by.....
6. **In turn,.....**
   agrees to provide CICP with records of the amount and kind of copying, storage, retrieval or dissemination of ASTM publications on forms to be provided by CICP for this two year period. The sole purpose of the gathering of this data shall be to obtain factual information for the basis of designing a practical system of permissions and payments.
7. **The specific data obtained by CICP during this two year period from**
   .....shall not be used by ASTM for the purposes of legal proceedings by ASTM against .....
8. **Since the purpose of the CICP study is to give.....**
   .....the widest flexibility in the use of ASTM publications without hindrance of copyright restrictions and since it is in the interest of .....
   ..... to have developed a practical system of permissions and payments, then.....agrees to donate
   $50. per year to CICP during the period of this study. This amount shall be accepted as dues for a one-year membership in CICP.....
   .....shall be represented within CICP on an appropriate Standing Committee.
9. **Upon completion of the study ASTM and CICP pledge that they shall endeavor to establish a clearinghouse, open to all publishers and users, to administrate an equitable system of permissions and payments.**

In Witness Whereof, the parties have executed this Agreement this day of ,196

Attest: **American Society for Testing and Materials by:**

_____ _____

Executive Secretary

Attest: **by:**

_____ _____

APPENDIX B

Committee to Investigate Copyright Problems

Instructions:

1. Please fill in questionnaire as completely as possible.

2. Data supplied should be for the five-day period beginning Monday, May 19, 1969.

3. After completion of recording, please return to:
   Committee to Investigate Copyright Problems
   c/o American Society for Testing and Materials
   1916 Race Street
   Phila., Pa. 19103

Identification:

1. Corporate Name Idaho Nuclear Corporation

   Address P. O. Box 1845

   Idaho Falls, (City) Idaho (State) 83401 - (Zip Code)

2. Person completing questionnaire Jerry B. Stuit

3. Copies made from

	Number of copies made: Full Document	In Part
ASTM Special Technical Publication		
STP #		
#		
#		
#		
Journal of Materials		
Vol. # 7	15 pp	
#		
#		
Book of ASTM Standards		
Part # 1	27 pp	
# 3		
#		
Separate ASTM Standards		
ASTM #		
#		
#		

TOTALS, WITHOUT IDENTIFICATION

For the same five-day period, count or estimate the number of pages.

	Total Number of Copies of Pages made.	
	Full Document	In Part
(a) copied from copyrighted material (total, including ASTM publications)	1062 pp (15)	____
(b) copied from published material (total, copyrighted and not)	1062 pp (15)	____
(c) copied (total published and not, of any kind)	2153 pp (15)	____

Do you charge for copying? If so please give charge per page: $ no

Please also rough-estimate amount of average cost per copy: $ ____

A. L. Batik:yrf

APPENDIX C - PARTICIPATING ORGANIZATIONS AND THEIR LIBRARIES
PART I

ORGANIZATION	NUMBER OF LIBRARIES REPORTING Nov. 18, 1968	Feb. 24, 1969	May 19, 1969
Algoma Steel	1	---	---
*Anaconda American Brass	1	1	---
*Armco Steel	1	1	1
Asbestos Corporation, Ltd.	1	1	---
Atlantic Richfield	1	---	---
Cabot Corporation	1	---	1
W. M. Chace	1	1	---
Chicago Bridge and Iron	1	1	---
*Chief of Defense Staff, Canada	1	1	1
Cone Mills	---	---	1
*Corning Glass	1	1	1
De Soto, Inc.	1	---	---
*Ellerbe, Architects	1	1	1
Georgia State Highway Dept.	---	1	1
General Steel Wares, Ltd.	1	1	---
Getty Oil	1	---	1
*Goodyear Tire and Rubber	1	1	1
Idaho Nuclear Corp.	1	---	1
*Ideal Cement	1	1	1
*Inland Steel	1	1	1
Keer-McGee	1	1	---
V. B. Kling, Architects	---	1	---
Koppers	1	---	1
Lorillard	1	1	---
Mettler Instrument	---	1	---
*Michigan Technological University	1	1	1
Mobil Chemical	1	1	---
National Highway Safety Bureau	---	---	1
*Research Council of Alberta	1	1	1
Rohm and Haas	1	---	---
Rome Cable Div., Cyprus Mines	1	---	1

APPENDIX C - PARTICIPATING ORGANIZATIONS AND THEIR LIBRARIES
PART II

ORGANIZATION	NUMBER OF LIBRARIES REPORTED Nov. 18, 1968	Feb. 24, 1969	May 19, 1969
Simpson Timber	---	1	---
Southwestern Portland Cement	2	---	2
State Road Commission of Western Va.	1	---	1
Sun Oil	1	1	---
*Superior Continental	1	1	1
*Timken Roller Bearing	1	1	1
Universal Oil Products	1	1	---
*Virginia Dept. Highways	1	1	1
Virginia Highway Research Council	1	---	---
*Wisconsin Div. of Highways	1	1	1
Wyoming State Highway	---	1	---
Libraries Participating	40	36	31
Organizations Participating	39	32	27

Total Libraries --- 52

Total Organizations --- 46

* One of 17 Organizations Reporting Three Periods.

APPENDIX D

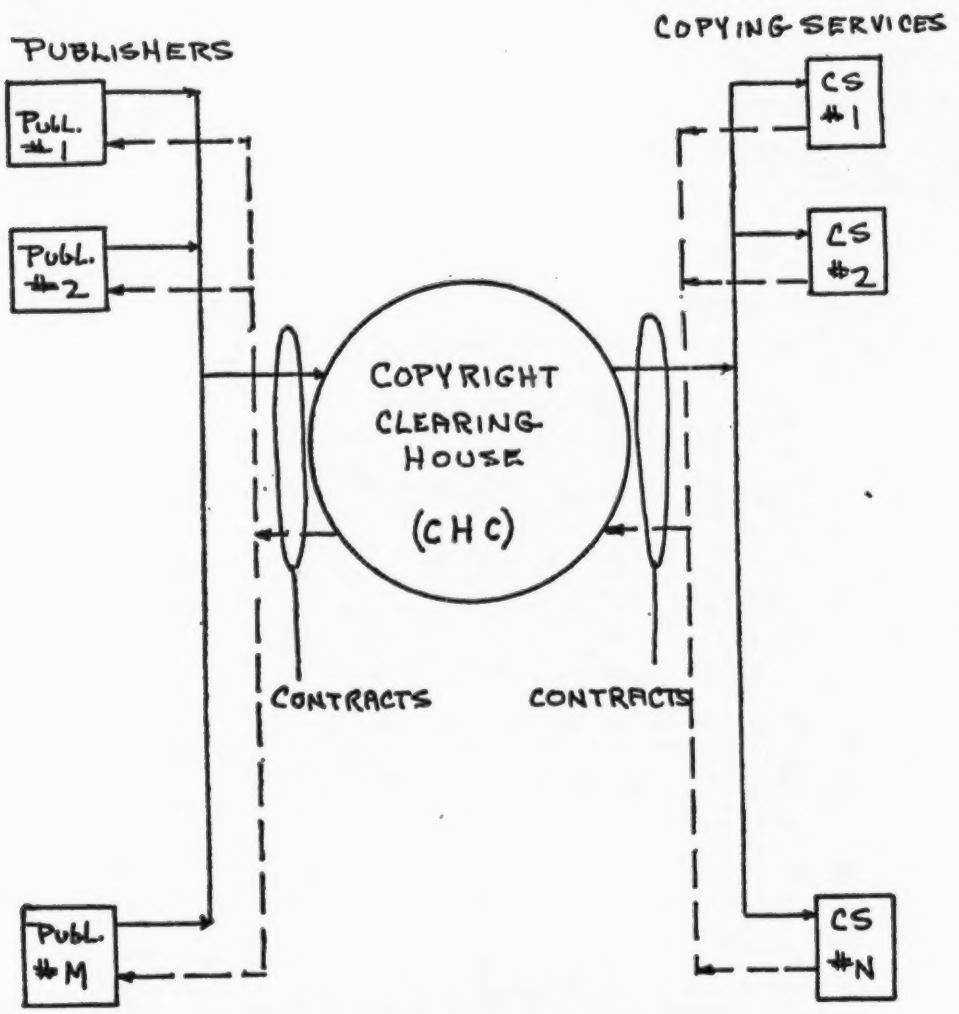

FIG 4. FUNCTION OF COPYRIGHT CLEARING HOUSE

——— RIGHTS TO COPY

— — PAYMENTS

This method of solving the copyright duplicating problem has many virtues. The chief are: (1) it maintains the copyright principle and sustains that part of the creativity cycle which depends upon copyright; (2) it offers an economic switching device—a means for copiers to pay a modest fee for the privilege of copying, and enables them to copy by means of the new techniques, i.e., easily, cheaply, rapidly and lawfully in unlimited amounts; (3) its existence would make unnecessary the appeal to disputed legal principles such as "fair use" in photocopying, and the even more doubtful equating of fair use with the making of single copies; (4) it is readily extendable to other media than graphic; (5) it is based on voluntary adherence to contract, rather than on legal recourse. On the other hand, since the operation will be under the Copyright Statute, the CHC in no way reduces legal recourse in such cases as are necessary.